

ABSTRACT OF THE DISCLOSURE

A method and apparatus is described for providing a consistent visual appearance of pixels of a display screen with respect to a viewing position. Variations between perceived pixel level values associated with the pixels and corresponding pixel level values may be compensated for. Variations are associated with a viewing angle between pixel location and the viewing position and compensated for by applying a respective different correction factor to each of the corresponding pixel level values based on a respective viewing angle. Accordingly different non-linear correction curves corresponding to locations may be established relating a range of pixel level values to a corresponding range of corrected pixel level values associated with the viewing position. A calibration pattern may be further be displayed and user inputs associated with locations received responsive to calibration pattern. Viewing position and non-linear correction curves may thereby be established for locations relative to the viewing position and based on user inputs. User inputs are stored with an association to a user identity. A user input is processed to obtain user identity and stored user inputs and viewing position and non-linear correction curves established based on the user inputs. Change is detected in a relative orientation between a display orientation and the viewing position and a second respective different correction factor applied to each corresponding pixel level value based on the change. Second different non-linear correction curves are established relating pixel level values to corrected values associated with relative orientations. Interpolation or an analytical function is applied to arrive at corrected pixel values. To detect changes, one or more sensors are read. A viewing position sensor senses the position of a remote device coupled to the viewer. The viewer feature tracking sensor includes a camera and means for analyzing an image for features associated with the viewer.